

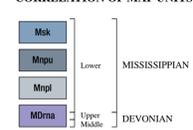
INTRODUCTION

This preliminary geologic map of the New Bellsville 7.5-minute quadrangle is an interim geologic map product prepared to document progress accomplished during the third year of a three-year project to map bedrock geology in Bartholomew County, Indiana. The New Bellsville quadrangle is located on the western edge of the county (see index map below) where the youngest rock units found in the county crop out in the Norman Upland Division of the Southern Hills and Lowlands Region (Gray, 2000) and the oldest Mississippian and youngest Devonian units subcrop out on a complex bedrock surface that underlies thick Quaternary unconsolidated sediments, mostly of glacial origin. These Mississippian and Devonian sedimentary rock units dip gently westward. The Quaternary deposits in the New Bellsville quadrangle that overlie the bedrock units shown on this map are typically less than 50 ft thick but locally exceed 100 ft in thickness.

REFERENCES

Gray, H. H., 2000, Physiographic divisions of Indiana: Indiana Geological Survey Special Report 61, 15 p., 1 pl.

CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

- Msk** Spickert Knob Formation (Mississippian, Lower)—Dark-gray and yellowish-brownish siltstone and argillaceous siltstone with lesser amounts of gray shale. Typically forms the steepest slopes in the upland (western) portion of the map area. Only the lower part of the Spickert Knob is present in the map area.
- Mnpu** New Providence Shale, upper unit (Mississippian, Lower)—Medium- to dark-gray, soft claystone, shale, and mudstone. Forms low slopes. Typically covered with colluvium or glacial sediments, especially the lower part. Exposures are limited to a few stream cuts and recent excavations. Approximately 200 ft thick in map area.
- Mnpf** New Providence Shale, lower unit (Mississippian, Lower)—Conspicuous dusky-red, grayish-red, and purplish-gray shale with lesser gray shale. Overlain by thick glacial deposits throughout the map area. Approximately 50 ft thick in map area.
- MDma** New Albany Shale and Rockford Limestone undifferentiated (Mississippian, Lower and Devonian, Upper and Middle)—The New Albany Shale is a dark brownish-gray to black carbonaceous brittle play shale with lesser amounts of olive-gray shale. The New Albany Shale is approximately 125 to 130 ft thick in the map area. The Rockford Limestone is a thin (less than 5 ft) marker bed that conformably overlies the New Albany Shale. The Rockford is a gray fine-grained, argillaceous limestone.

Contacts

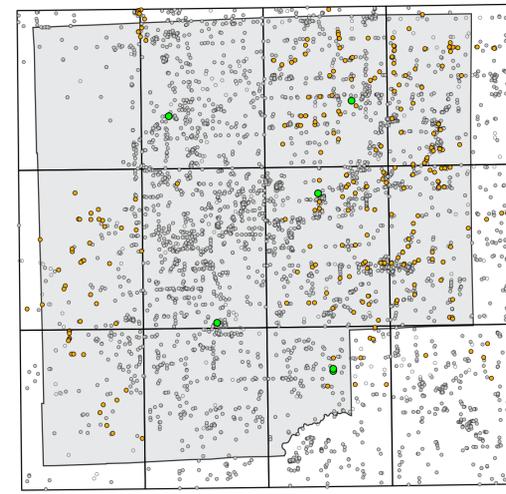
- Identity and existence certain, location approximate
- Identity and existence certain, location concealed

Data Points

- Field observation
- Water well
- Petroleum well
- Drill test hole (mostly bridge borings)

STATUS OF PROJECT DATA

Index map of Bartholomew County showing the distribution of accumulated project data. Large green dots (●) mark the locations of core holes completed with project funds, orange dots (●) indicate locations where project field data was collected, light gray dots (●) indicate the locations of archive data (water wells, petroleum wells, seismic refraction, etc.) added to the project database, and hollow dots (○) indicate data sites that require further processing.



ACKNOWLEDGMENTS

This map is the result of a cooperative mapping agreement between the U.S. Geological Survey and the Indiana Geological Survey (National Cooperative Geologic Mapping Program agreement G12AS000007).

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Digital cartography by Matthew R. Johnson and Laura A. Montgrain

Basemap features digitized from the U.S. Geological Survey topographic quadrangle maps, scale 1:24,000 with updates from 2011 aerial photography.
Contours and shading based on Indiana LiDAR data from 2011 compiled by L. A. Montgrain.
Projection: Universal Transverse Mercator (UTM), Zone 16N.
Horizontal Datum: North American Datum of 1983 (NAD83).

Preliminary Bedrock Geologic Map of the New Bellsville 7.5-Minute Quadrangle, Indiana

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